

Montana and the Sky

Vol. 34, No. 1

MONTANA AERONAUTICS DIVISION

January, 1979

Bozeman Receives FAA Environmental Award

A regional award for environmental design was presented to Gallatin Field mid-December by the Federal Aviation Administration.

Accepting the award was Bill Merrick, Chairman of the Gallatin Airport Authority. The award is presented annually to the airport of the region judged highest in environmental endeavors.

Gallatin Field was recognized for development of the new airport terminal and work on the airport master plan.

"The building (terminal) is highly functional and an outstanding example of the use of design, art, and architecture to enhance the compatibility of airport structures with their surrounding environment," M. M. Martin, FAA Director, said in a letter to Mr. Merrick.

Dr. 'Chet' Ross to Leave Airport Authority

Dr. Herman "Chet" Ross, a prominent Kalispell veterinarian and active community leader, announced recently his resignation from the Flathead County Airport Authority and his decision to assume a position with Colorado State University.

Ross, one of the more forceful members of the Airport Authority which oversees the operators at Glacier Park International Airport, told the county commissioners he was resigning effective December 31.

He has been active on the Airport Authority for many years and was instrumental in getting additional commercial air carrier service for the area.

December 15, 1978

Mr. William A. Merrick
Chairman, Gallatin Airport
Authority Board
Bozeman, Montana 59715

Dear Mr. Merrick:

It is my pleasure to announce the selection of Gallatin Field to receive the FAA Rocky Mountain Region's 1978 environmental award for air carrier airports.

The award is issued annually under a program in which the air carrier airport of the region judged highest in environmental endeavors is selected for special recognition. Gallatin Field was selected this year because of its outstanding efforts and accomplishments towards improved environment of the airport and towards making it a better neighbor with the community.

Particular recognition was given to efforts and accomplishments in development of the new airport terminal building. The building is highly functional and an outstanding example of the use of design, art, and architecture to enhance the compatibility of airport structures with their surrounding environment. The display of sculptured Canadian geese is a dramatic focal point of these efforts and a highly effective means of blending the building to the wilderness area which characterizes the region.

Special consideration was also given to accomplishments in discouraging urban development in the vicinity of the airport and current actions in preparation of an airport master plan. When completed, the plan will provide for orderly development of the airport with maximum consideration for environmental concerns.

I am pleased to present you this plaque in recognition of these accomplishments and to extend to you my personal congratulations.

Sincerely,



M. M. MARTIN
Director
Rocky Mountain Region
Federal Aviation Administration

See Page 7 for Aeronautical Chart Questionnaire

Administrator's Column

The Montana Aeronautics Board met on December 8, 1978, to discuss legislation. It was their determination, at this time, to submit only the aviation fuel tax increase from 1¢ to 2¢. I am sure you are all aware that the Aeronautics Division has been solely funded by the 1¢ per gallon aviation fuel tax since our inception in 1945. With the closure of Glasgow Air Force Base and the cutback of Malmstrom Air Force Base we lost approximately 60% of our revenue. And I am sure everyone realizes the impact inflation has had on all of us.

Due to confusion regarding the tax increase, I would like to take this opportunity to explain this legislative proposal. Of the proposed 1¢ per gallon increase, ¾¢ will go into a revolving trust account to be used solely for loans, grants and navigational aids to local communities. The balance of the ¼¢ increase will go into the existing Aeronautics earmarked revenue account where the present 1¢ per gallon has always been deposited. This means that a total of 1 ¼¢ per gallon will be placed into the Aeronautics earmarked revenue account and used for our existing programs.

These programs include Flight Instructor Refresher Courses, Aviation Mechanics Refresher Seminars, college workshops, school education programs and scholarships, search and rescue, Veterans Administration flight school programs, 22 non-directional radio beacons, 19 VFR airway beacons, 10 state owned airports (excluding West Yellowstone), 55 unicom, technical assistance on airport engineering and planning, aeronautical charts and directories, pilot registrations, Aeronautics Board hearings and meetings, salaries, airport inspections, utilities, insurance, and so forth. My exclusion of the West Yellowstone Airport and the aircraft pool is deliberate, as they are set up on individual revolving accounts which are self sustaining and do not depend on the 1¢ per gallon earmarked revenue money.

* * * * *

I have been gathering with some of the aviation organizations within the state to organize particular pieces of legislation. The Montana Antique Aircraft Association is sponsoring a bill which would include antique aircraft in the state tax law which now exempts antique automobiles.

The Montana Pilot Association and the Montana Aviation Trades Association are supporting the legislation regarding powerline marking.

The Aeronautics Division has submitted legislation for an increase in the aviation fuel tax, which I explained above. It has already been designated as House Bill 60.

I will keep you informed on the progress of legislation which is pertinent to the aviation community.

* * * * *

I had the privilege of speaking at a Kiwanis Club luncheon in Dillon last month. There is a great deal of interest regarding the airline deregulation act and how it will effect future small community air service. I was able to address and answer a few questions regarding this issue.

* * * * *

I attended a meeting on January 8 in Billings with communities in Montana, to discuss the meeting with the Civil Aeronautics Board in Seattle, January 15. It is encouraging to see how the communities of Montana are joining together in an effort to mobilize their influence which will have a greater impact on the Civil Aeronautics Board's decision regarding small community air service.

It was explained at this meeting that the CAB is attempting to define exactly what "essential air service" is. The necessity of participating in the Seattle meeting was pointed out, so that the CAB could hear from the small rural communities those factors which must be considered when defining the term.



DEPARTMENT OF COMMUNITY AFFAIRS

Thomas L. Judge, Governor
Harold A. Frysliie, Director
Martin T. Mangan, Deputy Director

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Phone 449-2506

Box 5178

Helena, Montana 59601

Michael D. Ferguson
Administrator

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THURBER'S  HELENA



Ike Hoover (left), Deputy Director Rocky Mountain Region, FAA, presented a letter of recognition and an Environmental Award plaque to Bill Merrick (center), Chairman, Gallatin Airport Authority, and Frank Wolcott, Airport Manager.



Left to right, Joy Nash, G. C. Waite, Ike Hoover, Bill Merrick, Frank Wolcott, Carl McKay, Zales Ecton, Milt Vandeventer, John Buttelman, and Howard Nelson at the award presentation in Bozeman.



Help — We're Revising the Chart

The Montana Aeronautics Division is in the process of compiling the necessary data for a new Montana Aeronautical Chart. If you have an airstrip or know of anyone that does and wants to have it shown on the chart, please fill out the questionnaire on page 7 and return it to our office in Helena. More questionnaires are available at your request.

Calendar

January 24 — General Aviation Safety Clinic, Kalispell High School. 7:30 p.m. to 9:45 p.m.

January 30 — General Aviation Safety Clinic, Butte, Montana Power Auditorium. 7:30 p.m. to 9:45 p.m.

February 6 — General Aviation Safety Clinic, Lewistown, Yogo Inn. 7:30 p.m. to 9:45 p.m.

February 7 — General Aviation Safety Clinic, Billings, Federal Building, Room 3043. 7:30 p.m. to 9:45 p.m.

February 13 — General Aviation Safety Clinic, Helena, Army Aviation Support Facility, Airport. 7:30 p.m. to 9:45 p.m.

February 14 — General Aviation Safety Clinic, Bozeman, Darigold Meeting Room. 7:30 p.m. to 9:45 p.m.

February 20 — General Aviation Safety Clinic, Havre, REA Reception Room. 7:30 p.m. to 9:45 p.m.

February 21 — General Aviation Safety Clinic, Great Falls, Air Guard (Main Hangar Class Room). 7:30 p.m. to 9:45 p.m.

March 5-9 — Flight Instructor Refresher Course, Helena, MT. Contact Aeronautics Division (406) 449-2506.

March 6-8 — Fifth Annual Aviation Maintenance Seminar, Bismarck, N.D. Contact Frank Argenziano (701) 775-2240.

March 14 — Ag re-certification clinic, Ramada Inn, Billings.

March 15-17 — MATA Convention, Ramada Inn, Billings.

April 28-30 — Denver AOPA Flight Instructor Refresher Course. Call toll free to register (800) 638-0853.

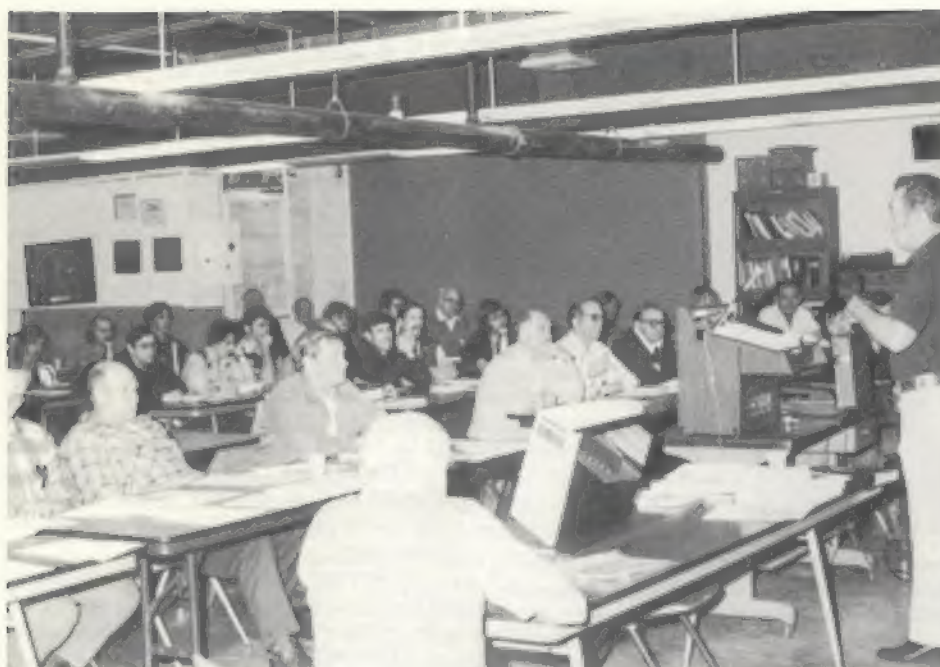
May 18-20 — MPA convention and annual meeting, Outlaw Inn, Kalispell.

More Jets

Frontier officials report that Frontier Air Lines have purchased two new Boeing 737 jetliners, to be delivered late in 1978.

The order is in addition to previous purchases of five Boeing 737's being delivered in the spring of 1979.

By the end of next year, Frontier will have a total of 39 Boeing 737's in its fleet.



Jim Byrd, Aircraft Technical Publication, addresses an attentive crowd at the AMRS.



Don Lewis, AVCO-Lycoming, was one of the speakers at the recent Aviation Mechanics Refresher Seminar.



Jack Johnson, Chrome Plate, San Antonio, Texas, provided some outstanding information to those who attended the Aviation Mechanics Refresher Seminar.

Food for Thought

Some people might find it hard to believe, as they sit down at the table for dinner, that airports and airplanes are partly responsible for their daily food. But it's true. And these days, with opposition to airports, it might be good to remind people how airplanes and airports and general aviation help provide them with bountiful meals.

More than 275 million of the 326 million acres in cultivation in the United States today are treated by air to produce more and better crops. Aerial application saves the farmer time and energy, helping to keep food prices the lowest in the world. Although we hear a lot of complaints about food prices these days, in fact they are a lot lower than they would be if modern aerial application methods were not used.

It's estimated that the price of farm products would rise by 50 to 70 percent if crops weren't treated by air, and production would fall some 30 percent. Americans now spend 17 percent of their incomes for food; without aerial application that figure would rise to 30 or 40 percent. (AOPA Report)

Liability in Wire Strike Cases

A couple of years ago, we did a short article wherein we pointed up some cases in law in which utility owners were being held liable at least in part for damages to aircraft sustained as a result of wire strikes. The April issue of the World of Agricultural Aviation carries an article which cites several more cases wherein the utility companies have been held liable by the courts in such cases.

Up until very recent years, most courts held that the pilot was virtually always responsible for such accidents and virtually always exonerated the utility companies even in cases where the wires were unmarked. Among the cases presented in the WAA journal is one where the poles were brightly marked but where vegetation had been allowed to grow obscuring the marked poles. The utility company was ruled liable.

It seemingly is making little difference to the courts whether or not the pilot was flying below 500 feet. The issues seem to revolve about just how visible the wires and poles are, whether or not they are in an area normally used by aircraft and whether there have been earlier incidents in which the same wires have caused accidents or damage to aircraft.

The cases cited are often complex in nature. It surely does appear though that the courts are taking a different position on the matter. We suspect utility companies will soon begin initiating programs to mark wires especially in airport and landing area approach zones, if they do not already have such a program. It appears the "handwriting is on the wall" in this matter.

(Illinois Aeronautics Division)

Airline passenger traffic for the first eleven months of 1978 showed an increase in revenue passenger miles of more than 31 billion over the same period last year. Domestic and international scheduled airline traffic increased 19.7 percent in November, 1978, compared with November, 1977.

Centerline



By: Jim White, Chief
Air Transportation Bureau

Winter Is Here! Are Your Ready?

With cold weather already here and more of it yet to come before the warmth of spring sets in, we all need to again be thinking about cold weather flight operations. To begin with, we must get the airplane started and here we have our first difficulty. The difficulty arises from two sources — (1) the battery becomes less efficient at lower temperatures and (2) the engine takes more battery power to "turn over" in colder weather (see accompanying chart). There are several procedures which can be followed to help alleviate problems. Pre-heating the engine before starting is one of the most effective methods when its available — check with your mechanic as to what temperature he would recommend for your aircraft to start considering pre-heat. There is usually a small fee to pre-heat your engine, but it is well worth the money when you consider the lower risk of an engine fire not to mention avoiding the frustration of an engine not starting, running down the battery, wear and tear on the engine and its components, etc. Keeping the airplane sheltered of course is always helpful; and this next suggestion may be inconvenient, but removing the battery and

keeping it inside in warm temperatures can be most helpful. Many other suggestions can be gleaned from your mechanic such as proper weight of oil, starting techniques, etc., and it would be well worth your time to discuss these with him.

POWER AVAILABLE vs. POWER REQUIRED CHART

This chart shows what everybody knows from starting an airplane (or car) in the winter — that is, that the colder it gets the harder it is to start the engine. As you can see, the power available from the battery decreases while the power required by the engine increases.

Temperature °F	Power Available (Percent)	Power Required (Arbitrary Unit)
80°	100%	1 Unit Power
32°	60%	1.65 Units
0°	45%	2.50 Units
-20°	30%	3.50 Units

In a real sense the engine is ten times harder to start at -20° F than at 80° F and this doesn't even consider several other facts that make starting more difficult in cold weather such as fuel vaporization for combustion.

(Nebraska Dept. of Aeronautics)

Some Psychological Aspects of Flying

Your attitudes and general mental state are just as important to safe flight as the condition of your aircraft. Any disturbing feelings which affect your ability to concentrate are a potential threat. These include anger, fear, frustration, depression, worry and anxiety.

A certain amount of anxiety is inevitable in flying. In small amounts, anxiety is even more desirable. It is nature's way of keeping you slightly keyed up for your task and alert to danger. But excessive anxiety, like other troubling emotions, can detract from your ability to concentrate in the cockpit and perhaps lead to disaster.

If you bring your problems from the ground into the air, you are not only more easily distracted from the job at hand, your body becomes less able to adjust to various stresses. Memory, judgment and presence of mind are crucial during flight and, surprisingly, muscular skills are closely

linked with mental capacity. When one becomes defective, the other usually does too. For example, if you are disturbed and preoccupied about something, you may lose some of your ability to time movements accurately, or your brain may fail to interpret what your eyes see on the instrument panel into a meaningful message. Research by the FAA's Civil Aeromedical Institute shows that emotional disturbances can even hamper the body's adjustment to altitude.

When you are under a strain of any sort — when you don't feel "good" — don't fly. If your concerns are only of the mild, every day sort, at least recognize that they exist. Then make an extra effort to concentrate on flight planning, to focus all your attention on aircraft operation, and to leave your other concerns behind you — on the ground.

(Minnesota Flyer)

Minuteman Acquires Evergreen

K. G. "Jerry" Mamuzich, President of Minuteman Aviation, Inc., Conrad, Montana, has announced that his firm has completed negotiations with Del Smith of Evergreen Helicopters, McMinnville, Oregon, to purchase the Evergreen Air of Montana base at Missoula. The Missoula base was formerly Johnson Flying Service, pioneers in aviation in the northwest. Robert Johnson started the flying service in the early days of aviation.

Minuteman started operating at Missoula on November 1, 1978, and will run a complete helicopter and fixed wing fixed base operation. This will include charters, instruction, sales, shop, fueling, and parts. At the present time they are the largest helicopter operator in the state.

Bob Sanderson will be operations manager at Missoula and will strive to give the best service possible. He has been involved in all phases of aviation for the past 25 years. If you're over in the Missoula area, stop in and say hello.

Airport Owner & Operator Liability



By Ted Mathis
Airport Manager

Each year we read about law suits brought against airport owners and operators of airports for damages to persons and property. Often these law suits are brought about because the airport operator or manager failed to notify the airport users of potentially hazardous conditions at or near the airport.

Let's discuss the airport operator or manager's responsibility to pilots. For instance, let's say that your airport receives a heavy snowfall and that you are forced to push this snow into tall banks at the end of the runway. Soon afterward a pilot in a light aircraft makes a slightly low approach and leaves the aircraft's landing gear in your snow bank. In the law suit that follows, it is determined that the airport operator and manager are at fault for the accident because they did not inform the flying public of this hazardous condition nor did they adequately mark the obstruction.

The airport operator or manager is responsible for informing users of the airport, the FAA and charting agents of hazardous or marginal conditions that may exist on an airport open to the public and for maintaining operational safety during construction periods. FAA Flight Service Stations disseminate Notices to Airmen (NOTAMS) regarding hazardous conditions as reported by the airport operator or manager.

How does the airport operator report these hazardous conditions? Information such as equipment mal-

function, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility either in person or by reverse charge telephone call. Airport operators should also see that NOTAMS are issued for such items as unmarked permanent obstructions, hours of attendance, rough or muddy field conditions, and no snow removal service during winter months. These more permanent NOTAMS should also be published in the FAA Airport Facility Directory and should be sent to:

Federal Aviation Administration
Air Traffic Service
Flight Service Division AAT-430
Washington, D.C. 20591

Open trenches, excavations, stock-piled materials, even snow banks should be prominently marked with red flags and approved lighting units during hours of restricted visibility and/or darkness.

As if the above responsibilities are not enough, airport owners and operators are also liable for other possible damage or injury caused by their failure to exercise reasonable care. This liability extends to lessees, airplane owners, passengers, spectators, visitors, and other members of the general public who may be on or about the airport premises.

The United States Aircraft Insurance Group publishes an excellent pamphlet entitled "The Legal Liability of Owners and Operators of Airports." The book is free and may be obtained from:

United States Aircraft Insurance Group
110 William Street
New York, N.Y. 10038

If you are involved in airport operations or management, this pamphlet is worth writing for.

1979 Montana Airport Directory

The 1979 Montana Airport Directory should be received from the printer this week. This year the directory has over 200 changes from the 1978 edition.

You can order your new airport directory from this office. The loose leaf binder costs \$1.00 and the new insert will cost \$1.00.

Use Your Transponder

By: Jack Van De Reit
Accident Prevention Specialist

Recently, two very critical near midair collisions have been reported.

One involved an IFR air carrier jet and a VFR C-210 immediately adjacent to the Denver TCA boundary. The other involved a BE 99 air taxi and a VFR C-500 just below the Dallas TCA floor. In both cases, the VFR aircraft had an altitude encoding transponder, but it was turned off. Unfortunately, the radar control facility did not detect the primary targets so traffic could not be issued.

Later, during an interview, both VFR pilots stated that they normally do not turn the transponder on unless ATC so requests.

Use your transponder. Turn it on the VFR code (1200) or the assigned IFR code immediately prior to takeoff on every flight. The transponder should remain in the ON position until landing is completed or ATC requests that it be turned off.

Primary targets are hard to detect on ATC radar, especially smaller aircraft. On the other hand, the transponder return from a small aircraft is the same size on the controller's scope as one from a wide bodied jet.

Keep safety on your side by "turning on your transponder" so ATC can issue traffic to you and about you.

1977 General Aviation Activity

The FAA has taken a survey of general aviation activity which shows that approximately 184,000 active aircraft in the United States logged 35.8 million hours of flying time. This is a 5.6% increase from the 33.9 million hours of flying time reported in 1976.

The complete report, *1977 General Aviation Activity and Avionics Survey*, will not be available until at least March. It may be obtained by writing to: FAA, Office of Management Systems, Information and Statistics Division (AMS-200), 800 Independence Avenue S.W., Washington, D.C. 20591.

ATTENTION: MONTANA AIRSTRIP OWNERS

The Aeronautics Division is compiling the necessary data to complete the new Aeronautical Chart. All private airstrip owners are requested to fill out the following questionnaire. We would prefer to have this information regarding your airstrip on file even if you do not wish your strip shown on the chart.

Mail to: Aeronautical Chart Revisions/vm
Aeronautics Division
P.O. Box 5178
Helena, Montana 59601

Deadline Date March 30

PRIVATELY OWNED AIRSTRIP LOCATION

Name of Airstrip _____

Name of Owner _____

Owner's Mailing Address _____

Prefer your airstrip shown on the 1980 Aeronautical Chart? Yes _____ No _____

AIRSTRIP LOCATION

County _____ Section _____ Township _____

Range _____ Latitude _____ Longitude _____

Nearest town _____ Direction _____ Miles _____

Does your airstrip serve as a community's only airport? Yes _____ No _____

Is your airstrip open to the public? Yes _____ No _____

Do you carry public airport liability insurance? Yes _____ No _____

Comments: _____

AIRSTRIP DATA

Runway Direction	Length	Width	Approach Obstructions & Distances
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_____	_____	_____	_____
-------	-------	-------	-------

_____	_____	_____	_____
-------	-------	-------	-------

_____	_____	_____	_____
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Airport Elevation _____ Unicom Radio? Yes _____ No _____

Fuel Available? Yes _____ No _____ Octane? _____ Emergency only _____

Telephone Available: Yes _____ No _____ Phone Number _____

Airstrip Owner's Signature: _____

Sharing Airspace Safely

The air tragedy involving a light plane and a PSA Boeing 727 last September has brought up many issues concerning collision avoidance.

When a tragedy of this nature occurs, the public reaction is generally unfavorable to light airplanes, even before the facts of the accident are released. Unfortunately the facts of any accident are not evaluated and released until months after the crash

has occurred. By that time the story is no longer newsworthy, even though the circumstances and facts of the accident tell a completely different story.

So, before we strike out at anyone, let's get the facts. There is a basic fact that can not be ignored — as air traffic increases the possibility of collision increases, it's a simple law of physics. Aviation needs suggestions which will be constructive as changes occur, not accusations and complaints that offer no solution to the problems. It makes no sense to enter into an argument which offers a solution to two airplanes being in the same place at the same time.

A very good starting place would be a better understanding between the airlines, general aviation and the air

traffic control system. First I would like to see everyone stand in each others shoes for a time. I would like to see every light plane pilot sit in the cockpit of an airliner on one flight, in and out of a busy terminal. Then I would like to see that airline pilot take the same trip in a single engine aircraft. Air traffic controllers would change places with the pilots and the pilots sit at a busy radar scope. The times that I have seen this take place has produced exactly the same response — "there is a lot more to this than I thought."

Progress toward eliminating collisions must start with an education of sorts — improved relations between everyone in aviation. It would be a tremendous start.

(Brian Addis — Minnesota Flyer)

MEMBER

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE—"To foster aviation, as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in **research, development, and advancement of aviation**; to develop uniform laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."



January, 1979

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